

## MANGANESE

(Data in thousand metric tons, gross weight, unless otherwise specified)

**Domestic Production and Use:** Manganese ore containing 20% or more manganese has not been produced domestically since 1970. Manganese ore was consumed mainly by five companies: three companies produced manganese dioxide for pig iron manufacture, and two companies produced silicomanganese and ferromanganese. Other companies consumed ore for nonmetallurgical purposes, such as in the production of animal feed, brick colorant, dry cell batteries, and fertilizers.

<u>Salient Statistics—United States:</u> <sup>1</sup>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025<sup>e</sup></u>
Production, mine	—	—	—	—	—
Imports for consumption:					
Manganese ores and concentrates	497	566	245	329	350
Ferromanganese	329	330	320	305	350
Silicomanganese	313	420	257	344	310
Exports:					
Manganese ores and concentrates	1	1	2	3	2
Ferromanganese	9	3	2	2	3
Silicomanganese	5	3	4	6	10
Shipments from Government stockpile: <sup>2</sup>					
Manganese ore	2	—	NA	NA	NA
Ferromanganese and manganese metal, electrolytic	21	14	NA	NA	NA
Consumption, reported:					
Manganese ore <sup>3</sup>	399	357	321	403	410
Ferromanganese	335	339	336	<sup>e</sup> 330	350
Silicomanganese	237	234	230	<sup>e</sup> 230	250
Consumption, apparent, manganese content <sup>4</sup>	717	804	653	<sup>e</sup> 670	640
Price, average, manganese content, cost, insurance, and freight, China, dollars per metric ton unit <sup>5</sup>	5.27	5.97	4.80	5.53	4.50
Stocks, producer and consumer, yearend:					
Manganese ore <sup>3</sup>	220	312	233	188	200
Ferromanganese	40	50	27	<sup>e</sup> 40	40
Silicomanganese	34	26	18	<sup>e</sup> 30	30
Net import reliance <sup>6</sup> as a percentage of apparent consumption, manganese content	100	100	100	100	100

**Recycling:** Manganese was recycled incidentally as a constituent of ferrous and nonferrous scrap; however, scrap recovery specifically for manganese was negligible. Manganese is recovered along with iron from steel slag.

**Import Sources (2021–24):** Manganese ore: Gabon, 64%; South Africa, 24%; Mexico, 12%; and other, <1%. Ferromanganese: Malaysia, 26%; Australia, 16%; Norway, 16%; South Africa, 14%; and other, 28%. Silicomanganese: Georgia, 24%; South Africa, 23%; Australia, 18%; Malaysia, 13%; and other, 22%. Manganese contained in principal manganese imports:<sup>7</sup> Gabon, 23%; South Africa, 21%; Malaysia, 11%; Australia, 10%; and other, 35%.

<u>Tariff: Item</u>	<u>Number</u>	<u>Normal Trade Relations 12-31-25</u>
Ores and concentrates:		
Containing less than 47% manganese	2602.00.0040	Free.
Containing 47% or more of manganese	2602.00.0060	Free.
Manganese dioxide	2820.10.0000	4.7% ad valorem.
Ferromanganese, containing by weight:		
More than 2% but less than 4% carbon	7202.11.1000	1.4% ad valorem.
More than 4% carbon	7202.11.5000	1.5% ad valorem.
1% or less carbon	7202.19.1000	2.3% ad valorem.
More than 1% but less than 2% carbon	7202.19.5000	1.4% ad valorem.
Ferrosilicon manganese (silicomanganese)	7202.30.0000	3.9% ad valorem.
Metal, unwrought:		
Flake containing at least 99.5% manganese	8111.00.4700	14% ad valorem.
Other	8111.00.4900	14% ad valorem.

**Depletion Allowance:** 22% (domestic), 14% (foreign).

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### Government Stockpile:<sup>8</sup>

Material	FY 2025		FY 2026	
	Potential acquisitions	Potential disposals	Potential acquisitions	Potential disposals
Manganese ore, metallurgical grade	—	292	NA	NA
Ferromanganese, high carbon	—	18	NA	NA
Manganese metal, electrolytic	5	—	NA	NA

**Events, Trends, and Issues:** In 2025, global production of manganese ore, on a manganese-content basis, increased from that in 2024. The leading countries for manganese ore production were, in descending order on a manganese-content basis, South Africa, Gabon, Ghana, and Australia. Consumption of manganese closely follows the steel industry. The World Steel Association<sup>9</sup> estimated global finished steel consumption was unchanged in 2025 compared with that in 2024. On a manganese-content basis, total U.S. manganese imports were estimated to have decreased by 5% in 2025 compared with those in 2024. In October 2025, the year-to-date average spot market prices for manganese ore, 44% grade, from China had decreased by 22% compared with the annual average spot price in 2024. A manganese mine in northern Australia that suspended its operation in 2024 owing to a tropical cyclone resumed operation in May 2025.

**World Mine Production (manganese content) and Reserves:** Significant revisions were made to the 2024 production for Australia and Ghana based on company and Government reports. Reserves for Australia, Brazil, China, Malaysia, and South Africa were revised based on company and Government reports.

	Mine production		Reserves <sup>10</sup>
	2024	2025 <sup>e</sup>	
United States	—	—	—
Australia	<sup>e</sup> 1,600	1,600	1 <sup>1</sup> 580,000
Brazil	705	800	300,000
China	690	700	260,000
Côte d'Ivoire	340	350	NA
Gabon	4,640	5,000	61,000
Ghana	1,280	2,000	13,000
India	731	790	34,000
South Africa	7,490	7,600	550,000
Other countries	<u>1,240</u>	<u>1,300</u>	<u>Small</u>
World total (rounded)	18,700	20,000	1,800,000

**World Resources:**<sup>10</sup> Land-based manganese resources are large but irregularly distributed; those in the United States are very low grade and have potentially high extraction costs. South Africa accounts for an estimated 70% of the world's manganese resources.

**Substitutes:** Manganese has no satisfactory substitute in its major applications.

<sup>e</sup>Estimated. NA Not available. — Zero.

<sup>1</sup>Manganese content typically ranges from 35% to 54% for manganese ore and from 74% to 95% for ferromanganese.

<sup>2</sup>Defined as change in total inventory from prior yearend inventory. If negative, increase in inventory. Beginning in 2023, Government stock changes no longer available.

<sup>3</sup>Exclusive of ore consumed directly at iron and steel plants and associated yearend stocks.

<sup>4</sup>Defined for 2021–22 as imports – exports ± adjustments for Government and industry stock changes. Beginning in 2023, Government stock changes no longer included. Manganese content based on estimates of average content for all significant components—including ferromanganese, manganese dioxide, manganese ore, manganese waste and scrap, silicomanganese, unwrought manganese metal, and wrought manganese metal.

<sup>5</sup>For average metallurgical-grade ore containing 44% manganese. Source: CRU Group.

<sup>6</sup>Defined for 2021–22 as imports – exports ± adjustments for Government and industry stock changes. Beginning in 2023, Government stock changes no longer included.

<sup>7</sup>Includes imports of ferromanganese, manganese dioxide, manganese ore, silicomanganese, and unwrought manganese metal.

<sup>8</sup>See Appendix B for definitions. For fiscal year 2026, the Annual Materials Plan was not released.

<sup>9</sup>Source: World Steel Association, 2025, Short range outlook October 2025: Brussels, Belgium, World Steel Association press release, October 13, 3 p.

<sup>10</sup>See Appendix C for resource and reserve definitions and information concerning data sources.

<sup>11</sup>For Australia, Joint Ore Reserves Committee-compliant or equivalent reserves were 110 million tons.